

CLAIMS:

1. A disc recording method comprising the steps of:

sub-dividing each of first basic recording areas of a disc, to which the disc is divided by a basic recording unit, into second basic recording areas; and

using each of the second basic recording areas as a unit for record control.

2. A disc recording method according to claim 1, wherein:

the sub-division of each of the first basic recording areas into the second basic recording areas is made based on a same number of first clocks reproduced from the respective first basic recording areas or second clocks obtained by either multiplying or dividing a frequency of the first clocks.

3. A disc recording method according to claim 1, wherein the disc employs sequential recording basically, and wherein each first basic recording area is obtained by dividing the disc by the basic recording unit according to disc standards.

4. A disc recording method according to claim 1, wherein the unit of each second basic recording area is in a range correctable by an ECC (Error Correction Code) block added to data.

5. A disc recording method and an apparatus using the method comprising the steps of:

starting to count clocks reproduced from each of basic recording areas, as a basic recording unit, of the disc prescribed according to disc standards, the respective basic recording areas reproducing a same number of first clocks, or to count second clocks obtained by multiplying or dividing a frequency of the first clocks, at a starting point of the basic recording area;

adding the obtained count to an address allocated to the relevant basic recording area;

detecting a particular basic recording area of the disc and a particular position in the particular basic recording area based on a result of the addition of the count and the address; and

controlling based on a result of the detection a position in the basic recording area where recording starts, in units of a sub-area obtained by sub-dividing the basic recording area.

6. A disc recording method and an apparatus using the method according to claim 5 further comprising the steps of:

storing the count in the basic recording area recorded so far and the address of the basic recording area when the recording becomes stopped due to some external cause in the basic recording area during recording; and

locating the position where the recording stopped when the recording becomes re-openable, based

on the stored address and count of the basic recording area, and continuing the recording on the disc at the located position.

7. A disc recording method and an apparatus using the method according to claim 6, wherein:

wobble signals are used as clocks reproduced by a same number from the respective basic recording areas on the disc.

8. A disc recording method and an apparatus using the method according to claim 6, wherein:

the disc-type recording medium under recording employs sequential recording basically.

9. A disc recording method and an apparatus using the method according to claim 6, further comprising the steps of:

in order to continue the recording on the disc at a position located based on the stored address and count of the basic recording area,

beforehand holding proper data in a data buffer corresponding to the basic recording area;

reading data corresponding to the located position from the data buffer; and

continuing to record the data on the disc.

10. A disc recording method and an apparatus using the method according to claim 6, wherein each second basic recording area is in a range correctable by an ECC (Error Correction Code) block added to data.

11. A disc recording method and an apparatus

using the method according to claim 6, further comprising the steps of:

determining a period of clocks used for control of a record starting position in the basic recording area that a read error in reproduction produced due to a deviation between a recording stopping position and a record re-opening position which in turn is due to accuracy of clocks used for control of the record starting position in the basic recording area is in a range of error correctability prescribed according to disc standards; and

eliminating the read error with aid of the error correcting ability.

ABSTRACT OF THE DISCLOSURE

A disc device in which recording is possible in a basic recording area in units of a subarea and startable at any position. Even if the recording cannot help stopping due to some external cause during recording on a disc-type recording medium that basically employs real-time sequential recording, the recording is re-openable at the position where the recording stopped when the external cause has disappeared. The disc device includes a reference clock counter that starts to count at the starting point of each basic recording area reference clocks read from the disc, and an address memory that holds an address of the basic recording area under recording. When the recording is stopped due to some external cause, the count of the counter and the address held by the address memory at that time are saved.

14
SCANNED, #